IN THE SPECIFICATION:

Please replace paragraph number **[0025]** on pages 4 and 5 with the amended paragraph that follows.

[0025] The human nail 24, together with conductive flesh 26 beneath the human nail 24 and a human finger 28 or toe, create a complete human nail conductive circuit 30. The capacitance value per unit of area of the human nail conductive circuit 30 is a semi-unique or individualized value, which will vary from one person to the next. In this manner, each person will have a semi-unique code or value associated with his or her unique human nail conductive circuit 30. This semi-unique value is or is translatable into the semi-unique data signal 22 and is transmitted towards the validator controller 12 by the data transmitter 14. In addition, the data signal 22 may also include, from memory and/or from real-time measurements and/or calculations, other unique characteristics of the user, such as nail dimension, nail curvature, nail coloration, nail groove configuration, fingerprints, operator's pulse, unique finger markings, finger opacity, a unique serial number, values from a randomized area of dielectric material, values from a randomized area of resistive material, change in resistance as the user pushes against a hard surface or another finger or digit, or a visual profile of the forefinger area, facial image, retinal image, voice characteristics, optical characteristics and/or patterns of the flesh under the nail, data resulting from an algorithm, etc. The present invention may be considered a human nail 24 thickness quasi-biometric device and/or a data tag, which uses the physical, mechanical and/or electrical characteristics of the human nail 24 to create a removal detection system to disable the device. Other methods of removal detection may rely on the physical strength properties of the human nail 24, such ~~a~~ as breakable wires glued separately on or within the human nail 24, such that, upon detection of a break in the wires, the device disables itself.

Please replace paragraph number **[0034]** on page 8 with the amended paragraph that follows.

[0034] Turning to Fig. 4, in the fourth embodiment of the present invention, the data transmitter 14 further includes capacitance plates 34 (as in Fig. 2) and an inductor 46, creating a resonance circuit. The inductor 46 is in communication with the capacitance plates 34, which measure the capacitance value via the creation of a specific resonant frequency through the conductive flesh 26 circuit. This unique capacitance value (or data signal 22) is transmitted through the inductor 46 and towards the validator controller 12. In order to transmit this data signal 22 to the validator receiver 18, the validator controller 12 further includes the validator emitter 38 discussed above. However, as opposed to emitting solar energy or light, the validator emitter 38 of this embodiment emits an electromagnetic wave or "pulse" towards the capacitance plates 34 and the inductor 46. In this embodiment, the inductor 46 is formed by a concentric circle of conductive material and is connected to two relatively larger areas of conductive material forming the two capacitance plates 34. The capacitance dielectric is the human nail 24, and the conductive flesh 26 is a common plate-connection for the capacitor. Other transponder-based technology may <u>be</u> utilized to transmit the data signal 22.

Please replace paragraph number **[0051]** on page 15 with the amended paragraph that follows.

[0051] The device can also store information (such as when and which validator controller ~~18~~ <u>12</u> associated with its firearm was fired or lock unlocked or validator controller 12 activated) in the data transmitter's nail digital chip 42 or simply store data from the validator controller 12. This can be later downloaded or read for a number of purposes, including verification that the action was correctly performed. Also, other validator controllers 12 can read this data to further test and discriminate whether the user has the authorization to perform the next action the user is requesting. An example of this would be not allowing access to a medical

operating room unless the user recently entered a decontamination room. It is also recognized that some applications may require negotiation or a "conversation" between the data transmitter 14 and the validator controller 12, such as an exchange of passwords or other data. Another example would involve unlocking access to a room with a specific level of toxic gas such as carbon monoxide that is determined to be below the wearer's calculated accumulated daily threshold of safe toxic concentration, which only the data transmitter 14 would know from its past logged data and calculations.

Please replace paragraph number **[0065]** on pages 18 and 19 with the amended paragraph that follows.

[0065] A further enhancement would be to provide a means to tune or adjust an "adjustment-constant" which is later added to the capacitative value and would be useful when replacing a data transmitter 14 so that no revalidation/re-introduction is needed. A special replacement security state would be useful to prevent this feature being used for falsification or tampering. Therefore, a method of eliminating the need for a re-introduction phase after the data transmitter 14 is removed and replaced onto the nails is to send a special secure control signal to the data transmitter 14 along with a trimming or adjustment value to be added to the raw real-time capacitance value, so that the new resulting value of capacitance sent to the validator controller 12 will be identical or close enough to the old capacitance that the data transmitter 14 does not need to be re-introduced to the validator controller 12 to re-recognize the individual and perform the desired action. Alternatively, a secure "accept this new value as correct and adjust your constants accordingly" signal may be used to do this. This enables the new position of the data transmitter 14 to be recognized by another stand alone validator ~~controllers~~ controller 12 afterwards.

Please replace paragraph number **[0100]** on pages 30 and 31 with the amended paragraph that follows.

[0100] In another specific example, the data transmitter 14 orientation data may be sent to a validator controller 12 positioned above the hand, and used to control or replace mouse cursor movement or status. In addition, this may be accomplished by using the polarization orientation data for the width axis of the computer screen and use the pitch orientation data for the height axis. A relative pitch orientation may be acquired optically by the validator controller 12 by having the data transmitter 14 reflect a point source signal back to the validator controller 12 using a curved reflective surface on the data transmitter 14. Such a surface could have thin, black, non-reflective lines at periodic intervals on ~~it~~ its surface, so that the pitch movement forward or backward would cause the reflection to be periodically interrupted or pulsed. These pulses could be counted and used to calculate a mouse cursor position along the screen height or Y axis. Other electrical or optical methods are envisioned such as tilt meters, directional light sensing arrays, etc. Another more discriminating method of polarization angle detection would utilize two polarization filters at different angles of polarization in the receiving section of the device to be controlled. A calculation based on the signal strength ratios between the two filters and between the filtered and ambient total signal received would more accurately indicate the polarization orientation of the data transmitter 14 polarization filter. It should be noted that to further discriminate between data transmitter 14 signal and background reflected signal, a means of segregating the background from the area that the data transmitter 14 is located in may be economically feasible. This means can be accomplished by devices such as pixel based devices and hardware/software that determines and tracks which pixels contain data transmitter 14 data and their degree of luminance.

Please delete the paragraph below the heading ABSTRACT OF THE DISCLOSURE and replace it with the new paragraph that follows.

~~The present invention is a~~ A human machine interface (10) for use in situations requiring authorized access. The human machine interface (10) includes a validator controller (12) and a data transmitter (14). The validator controller (12) includes a validator status actuator (16) in communication with a validator receiver (18) via a validator logic circuit (20). The validator status actuator (16) is configured to process and perform actions based upon data signals (22) received by the validator receiver (18). The data transmitter (14), which is in contact with a human nail (24), transmits the data signal (22) to the validator controller (12).